

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Klaus Cichutek et al. Art Unit : 1648  
Serial No. : 09/555,350 Examiner : U. Winkler  
Filed : May 26, 2000  
Title : CELL-SPECIFIC RETROVIRAL VECTORS WITH ANTIBODY DOMAINS AND  
METHOD FOR THE PRODUCTION THEREOF FOR SELECTIVE GENE TRANSFER

RECEIVED  
TECH CENTER 1600/2900  
02 SEP 23 AM 10:52

Commissioner for Patents  
Washington, D.C. 20231

VERIFIED STATEMENT UNDER 37 CFR §1.821(f)

I, Katica Magovcevic, declare that I personally prepared the computer-readable copy of the Sequence Listing filed herewith for the above-identified application and that the content of both the paper copy of the Sequence Listing filed on February 28, 2002 and the computer copy of the Sequence Listing filed herewith is the same.

I further declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of The United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Date: 9/19/02

Katica Magovcevic  
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(617) 542-5070 telephone  
(617) 542-8906 facsimile

20510319.doc

CERTIFICATE OF DELIVERY BY HAND

I hereby certify that this correspondence is being delivered by hand on the date indicated below and is addressed to the Commissioner for Patents, Washington, D.C. 20231.

9/23/02  
Date of Delivery  
Emmanuel T. Woodfork  
Signature  
Emmanuel T. Woodfork  
Typed or Printed Name of Person Signing Certificate

Winkler

1600 RUSA

CRF Errors Corrected by the STIC Systems Branch

Serial Number: 09/555,350B

CRF Processing Date: 9/23/2002  
Edited by:                       
Verified by:                      (STIC staff)

ENTERED

#15

- ☐ Changed a file from non-ASCII to ASCII
- ☐ Changed the margins in cases where the sequence text was "wrapped" down to the next line
- ☐ Edited a format error in the Current Application Data section, specifically:  
\_\_\_\_\_
- ☐ Edited the Current Application Data section with the actual current number. The number inputted by the applicant was ☐ the prior application data; or ☐ other \_\_\_\_\_
- ☐ Added the mandatory heading and subheadings for "Current Application Data".
- ☐ Edited the "Number of Sequences" field. The applicant spelled out a number instead of using an integer.
- ☐ Changed the spelling of a mandatory field (the headings or subheadings), specifically:  
\_\_\_\_\_
- ☐ Corrected the SEQ ID NO when obviously incorrect. The sequence numbers that were edited were:  
\_\_\_\_\_
- ☐ Inserted or corrected a nucleic number at the end of a nucleic line. SEQ ID NO's edited:  
\_\_\_\_\_
- ☐ Corrected subheading placement. All responses must be on the same line as each subheading. If the applicant placed a response below the subheading, this was moved to its appropriate place.
- ☐ Inserted colons after headings/subheadings. Headings edited included:  
\_\_\_\_\_
- ☐ Deleted extra, invalid, headings used by an applicant, specifically:  
\_\_\_\_\_
- ☐ Deleted: ☐ non-ASCII "garbage" at the beginning/end of files; ☐ secretary initials/filename at end of file;  
☐ page numbers throughout text; ☐ other invalid text, such as \_\_\_\_\_
- ☐ Inserted mandatory headings, specifically: \_\_\_\_\_
- ☐ Corrected an obvious error in the response, specifically:  
\_\_\_\_\_
- ☐ Edited identifiers where upper case is used but lower case is required, or vice versa.
- ☐ Corrected an error in the Number of Sequences field, specifically:  
\_\_\_\_\_
- ☐ A "Hard Page Break" code was inserted by the applicant. All occurrences had to be deleted.
- ☐ Deleted **ending** stop codon in amino acid sequences and adjusted the "(A)Length:" field accordingly (error due to a PatentIn bug). Sequences corrected: \_\_\_\_\_
- ☒ Other: Sequence 13 - corrected <2237 response



1600

## RAW SEQUENCE LISTING

DATE: 09/23/2002

PATENT APPLICATION: US/09/555,350B

TIME: 16:50:34

Input Set : A:\PTO.AMC.txt

Output Set: N:\CRF4\09232002\I555350B.raw

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5   Engelstadter, Martin
7 <120> TITLE OF INVENTION: CELL-SPECIFIC RETROVIRAL VECTORS WITH ANTIBODY DOMAINS AND
8   METHOD FOR THE PRODUCTION THEREOF FOR SELECTIVE GENE TRANSFER
10 <130> FILE REFERENCE: 11692-004001
12 <140> CURRENT APPLICATION NUMBER: US 09/555,350B
13 <141> CURRENT FILING DATE: 2000-05-26
15 <150> PRIOR APPLICATION NUMBER: PCT/DE98/03543
16 <151> PRIOR FILING DATE: 1998-11-27
18 <150> PRIOR APPLICATION NUMBER: DE 197 25 854.6
19 <151> PRIOR FILING DATE: 1997-11-28
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## RAW SEQUENCE LISTING

DATE: 09/23/2002

PATENT APPLICATION: US/09/555,350B

TIME: 16:50:34

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## RAW SEQUENCE LISTING

DATE: 09/23/2002

PATENT APPLICATION: US/09/555,350B

TIME: 16:50:34

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Output Set: N:\CRF4\09232002\I555350B.raw

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RAW SEQUENCE LISTING                      DATE: 09/23/2002  
 PATENT APPLICATION: US/09/555,350B        TIME: 16:50:34

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 Output Set: N:\CRF4\09232002\I555350B.raw

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## RAW SEQUENCE LISTING

DATE: 09/23/2002

PATENT APPLICATION: US/09/555,350B

TIME: 16:50:34

Input Set : A:\PTO.AMC.txt

Output Set: N:\CRF4\09232002\I555350B.raw

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239 Leu Ser Ala Asn Gln Leu Ile Glu Asp Val Gln Ala Leu Ser Gly Thr
240      100      105      110
241 Ile Asn Asp Leu Gln Asp Gln Ile Asp Ser Leu Ala Glu Val Val Leu
242      115      120      125
243 Gln Asn Arg Arg Gly Leu Asp Leu Leu Thr Ala Glu Gln Gly Gly Ile
244      130      135      140
245 Cys Leu Ala Leu Gln Glu Lys Cys Cys Phe Tyr Ala Asn Lys Ser Gly
246 145      150      155      160
247 Ile Val Arg Asp Lys Ile Arg Lys Leu Gln Glu Asp Leu Ile Glu Arg
248      165      170      175
249 Lys Arg Ala Leu Tyr Asp Asn Pro Leu Trp Ser Gly Leu Asn Gly Phe
250      180      185      190
251 Leu Pro Tyr Leu Leu Pro Leu Leu Gly Pro Leu Phe Gly Leu Ile Leu
252      195      200      205
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VERIFICATION SUMMARY

DATE: 09/23/2002

PATENT APPLICATION: US/09/555,350B

TIME: 16:50:35

Input Set : A:\PTO.AMC.txt

Output Set: N:\CRF4\09232002\I555350B.raw





1600

## RAW SEQUENCE LISTING

DATE: 09/23/2002

PATENT APPLICATION: US/09/555,350B

TIME: 14:36:22

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Output Set: N:\CRF4\09232002\I555350B.raw

4 <110> APPLICANT: Cichutek, Klaus  
 5 Engelstadter, Martin  
 7 <120> TITLE OF INVENTION: CELL-SPECIFIC RETROVIRAL VECTORS WITH ANTIBODY DOMAINS AND  
 8 METHOD FOR THE PRODUCTION THEREOF FOR SELECTIVE GENE TRANSFER  
 10 <130> FILE REFERENCE: 11692-004001  
 12 <140> CURRENT APPLICATION NUMBER: US 09/555,350B  
 13 <141> CURRENT FILING DATE: 2000-05-26  
 15 <150> PRIOR APPLICATION NUMBER: PCT/DE98/03543  
 16 <151> PRIOR FILING DATE: 1998-11-27  
 18 <150> PRIOR APPLICATION NUMBER: DE 197 25 854.6  
 19 <151> PRIOR FILING DATE: 1997-11-28  
 21 <160> NUMBER OF SEQ ID NOS: 35  
 23 <170> SOFTWARE: FastSEQ for Windows Version 4.0  
 25 <210> SEQ ID NO: 1  
 26 <211> LENGTH: 4776  
 27 <212> TYPE: DNA  
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 30 <220> FEATURE:  
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 53 cggtccggg ggcgggtggt ctgggtggtg ttctggtggt ggtggttctg gtggtggtgg 1200  
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 55 tacacttgct ggtggaacgg ggcttggggt ctccgttcac acttatcaca agctctctaa 1320  
 56 tcaattgatt gaagatgtcc aggcctcttc agggaccatc aatgacctac aggaccagat 1380

Does Not Comply  
 Corrected Diskette Needed

P.S

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/555,350B

DATE: 09/23/2002

TIME: 14:36:22

Input Set : A:\11692-004001.txt

Output Set: N:\CRF4\09232002\I555350B.raw

57	tgactccctg	gctgaggttg	tcttacaaaa	tagaagaggg	ttagacctat	tgactgccga	1440
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59	tatcgtagct	gacaagatcc	gaaaactcca	agaggacctt	atcgagagaa	aacgtgcact	1560
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62	gactcgcatt	atacatgaca	aaattcaggc	agtaaaatcc	tagcactagt	cccacagtac	1740
63	aagccactcc	caacagagat	ggatacccta	gggggtccgat	ggtctaagaa	ttctcgagtc	1800
64	taagatcgat	cgaattccta	ggtcaatgat	ttgaccagaa	tgtacaagag	cagtggggaa	1860
65	tgtgggaggg	gcttacgaag	gccttaagtg	actaggtacc	cgatccagac	atgataagat	1920
66	acattgatga	gtttggacaa	accacaacta	gaatgcagtg	aaaaaaatgc	tttattttgtg	1980
67	aaattttgtg	tgtatttgtt	ttattttgtaa	ccattataag	ctgcaataaa	caagttaaca	2040
68	acaacaattg	cattcattttt	atgtttcagg	ttcaggggga	ggtgtgggag	gtttttttaa	2100
69	gcaagtaaaa	cctctacaaa	tcaagctggg	caagctagat	ctagcttggc	gtaatcatgg	2160
70	tcatagctgt	ttcctgtgtg	aaattgttat	ccgctcacaa	ttccacacaa	catacgagcc	2220
71	ggaagcataa	agtgtaaagc	ctgggggtgc	taatgagtga	gctaactcac	attaattgcg	2280
72	ttgcgctcac	tgcccgcttt	ccagtcggga	aacctgtcgt	gccagctgca	ttaatgaatc	2340
73	ggccaacgcg	cggggagagg	cggtttgctg	attgggcgct	cttcgccttc	ctcgcctact	2400
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75	atacggttat	ccacagaatc	aggggataac	gcaggaaaga	acatgtgagc	aaaaggccag	2520
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102	gcactcttta	ctttcaccag	cgtttctggg	tgagcaaaaa	caggaaggca	aaatgccgca	4140
103	aaaaagggaa	taagggcgac	acggaaatgt	tgaatactca	tactcttctt	ttttcaatat	4200
104	tattgaagca	tttatcaggg	ttattgtctc	atgagcggat	acatatttga	atgtatttag	4260
105	aaaaataaac	aaataggggt	tccgcgcaca	tttccccgaa	aagtgccacc	tgacgtctaa	4320

## RAW SEQUENCE LISTING

DATE: 09/23/2002

PATENT APPLICATION: US/09/555,350B

TIME: 14:36:22

Input Set : A:\11692-004001.txt

Output Set: N:\CRF4\09232002\I555350B.raw

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108 acagcttgtc tgtaagcgga tgccgggagc agacaagccc gtcagggcgc gtcagcgggt      4500
109 gttggcgggt gtcggggctg gcttaactat gcggcatcag agcagattgt actgagagt      4560
110 caccatatgc ggtgtgaaat accgcacaga tgcgtaagga gaaaataccg catcaggcgc      4620
111 cattcgccat tcaggctgcg caactgttg gaagggcgat cggtgcgggc ctcttcgcta      4680
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121 <220> FEATURE:
122 <223> OTHER INFORMATION: Synthetically generated peptide
124 <400> SEQUENCE: 2
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126   1             5             10
128 <210> SEQ ID NO: 3
129 <211> LENGTH: 21
130 <212> TYPE: PRT
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133 <220> FEATURE:
134 <223> OTHER INFORMATION: Synthetically generated peptide
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138   1             5             10             15
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140           20
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143 <211> LENGTH: 8
144 <212> TYPE: PRT
145 <213> ORGANISM: Artificial sequence
147 <220> FEATURE:
148 <223> OTHER INFORMATION: Synthetically generated peptide
150 <400> SEQUENCE: 4
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152   1             5
154 <210> SEQ ID NO: 5
155 <211> LENGTH: 13
156 <212> TYPE: PRT
157 <213> ORGANISM: Artificial sequence
159 <220> FEATURE:
160 <223> OTHER INFORMATION: Synthetically generated peptide
162 <400> SEQUENCE: 5
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164   1             5             10
167 <210> SEQ ID NO: 6
168 <211> LENGTH: 12
169 <212> TYPE: PRT

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## RAW SEQUENCE LISTING

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TIME: 14:36:22

Input Set : A:\11692-004001.txt

Output Set: N:\CRF4\09232002\I555350B.raw

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172 <220> FEATURE:
173 <223> OTHER INFORMATION: Synthetically generated peptide
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180 <211> LENGTH: 10
181 <212> TYPE: PRT
182 <213> ORGANISM: Artificial sequence
184 <220> FEATURE:
185 <223> OTHER INFORMATION: Synthetically generated peptide
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189   1           5           10
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216           20
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220 <212> TYPE: PRT
221 <213> ORGANISM: Artificial sequence
223 <220> FEATURE:
224 <223> OTHER INFORMATION: Synthetically generated peptide
226 <400> SEQUENCE: 10
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228   1           5           10           15
229 Ala Ser Lys Ile Leu Ile Leu Leu Val Ala Trp Trp Gly Phe Gly Thr
230           20           25           30
231 Thr Ala Glu Val Ser Thr Ala Gly Ser Gly Gly Gly Gly Ser Gly Gly
232           35           40           45
233 Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Ala Ser Pro

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## RAW SEQUENCE LISTING

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TIME: 14:36:22

Input Set : A:\11692-004001.txt

Output Set: N:\CRF4\09232002\I555350B.raw

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235 Val Gln Phe Ile Pro Leu Leu Val Gly Leu Gly Ile Ser Gly Ala Thr
236 65      70      75      80
237 Leu Ala Gly Gly Thr Gly Leu Gly Val Ser Val His Thr Tyr His Lys
238      85      90      95
239 Leu Ser Ala Asn Gln Leu Ile Glu Asp Val Gln Ala Leu Ser Gly Thr
240      100      105      110
241 Ile Asn Asp Leu Gln Asp Gln Ile Asp Ser Leu Ala Glu Val Val Leu
242      115      120      125
243 Gln Asn Arg Arg Gly Leu Asp Leu Leu Thr Ala Glu Gln Gly Gly Ile
244      130      135      140
245 Cys Leu Ala Leu Gln Glu Lys Cys Cys Phe Tyr Ala Asn Lys Ser Gly
246 145      150      155      160
247 Ile Val Arg Asp Lys Ile Arg Lys Leu Gln Glu Asp Leu Ile Glu Arg
248      165      170      175
249 Lys Arg Ala Leu Tyr Asp Asn Pro Leu Trp Ser Gly Leu Asn Gly Phe
250      180      185      190
251 Leu Pro Tyr Leu Leu Pro Leu Leu Gly Pro Leu Phe Gly Leu Ile Leu
252      195      200      205
253 Phe Leu Thr Leu Gly Pro Cys Ile Met Lys Thr Leu Thr Arg Ile Ile
254      210      215      220
255 His Asp Lys Ile Gln Ala Val Lys Ser
256 225      230
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259 <211> LENGTH: 14
260 <212> TYPE: PRT
261 <213> ORGANISM: Artificial sequence
263 <220> FEATURE:
264 <223> OTHER INFORMATION: Synthetically generated peptide
266 <400> SEQUENCE: 11
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268 1      5      10
270 <210> SEQ ID NO: 12
271 <211> LENGTH: 15
272 <212> TYPE: PRT
273 <213> ORGANISM: Artificial sequence
275 <220> FEATURE:
276 <223> OTHER INFORMATION: Synthetically generated peptide
278 <400> SEQUENCE: 12
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283 <211> LENGTH: 16
284 <212> TYPE: PRT
285 <213> ORGANISM: Artificial sequence
287 <220> FEATURE:
288 <223> OTHER INFORMATION: Synthetically generated primer peptide
290 <400> SEQUENCE: 13
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VERIFICATION SUMMARY

DATE: 09/23/2002

PATENT APPLICATION: US/09/555,350B

TIME: 14:36:23

Input Set : A:\11692-004001.txt

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